

Amendments to the Drawings

In Figure 6, reference numerals 10 and 12 have been added from Figure 7.

In Figure 10, reference numerals 29, 33 and 35 have been added from Figure 9 and reference numerals 10 and 12 have been added from Figure 7.

Attachment: Replacement Sheets

Annotated Marked-Up Drawings

REMARKS**Statement of Substance of Interview**

Applicants thank Examiners Gakh and Hyun for their helpful comments during the telephonic interview on January 5, 2007.

During the interview, the undersigned explained the invention by discussing each element of Claim 1 and drawing the Examiners' attention to Figures 3-10. Examiner Gakh requested that reference numerals be repeated throughout the Figures.

Examiner Gakh found the recitation in the claims of the valve comprising a moveable element to be unclear and found that the three parts of Claim 1, the conduit, the valve, and the fluid port, were not recited in such a way that all three parts were connected to each other. It was agreed that the recitation of the valve in the claims would be amended. It was pointed out that the claims do describe that a member associated with the conduit opens the valve and that the opening of the valve allows fluid to pass through the fluid port; thus, all three elements are connected as described in the claims.

The undersigned and Examiner Hyun then discussed the references cited in the Office Action, Stapleton *et al.* (US 5,922,604) and Kath *et al.* (US 5,882,601). Based on the clarified description of the invention, Examiner Hyun stated that additional prior art may need to be reviewed.

Amendments to the Claims

Claim 1 has been amended to clarify that a source of negative or positive air pressure can be communicated through the conduit. Support for the amendment can be found, for example, in claim 1 as originally filed.

Claims 1, 13, 19 and 22-24 have been amended to replace “flat surface” with “microscope slide.” Support for these amendments can be found in the specification at, for example, page 9, lines 18-20, Figure 1 and originally filed claim 2.

Claims 1, 13, 19 and 23 have been amended to add “a valve comprising a moveable valve element.” Support for these amendments can be found in the specification at, for example, page 5, lines 11-14; page 10, line 26 through page 11, line 15; and Figs. 4, 5 and 6.

Claim 18 was objected to based on improper antecedent basis for the limitation “a conduit.” Claim 18 has been amended as suggested by the Examiner.

Claims 21-24 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The Examiner stated that the location of the valve with respect to the port is unclear because claims 21 and 23 recite that the valve is positioned at the fluid port, but the claims also recite that the valve comprises a flexible membrane that is positioned below the fluid port. Claims 21 and 23 have been amended to remove the limitation relating to the location of the flexible membrane. Claims 21-24 now describe a flexible membrane in the valve, wherein the valve is positioned at the fluid port. It is believed that the amendments to claims 21-24 obviate the rejection.

Claims 1-4, 10, 12, 13 and 17-24 have been rejected under 35 U.S.C. §103(a) as unpatentable over Stapleton *et al.* (US 5,922,604) in view of Kath *et al.* (US 5,882,601).

MPEP 2143 sets out the three basic requirements for establishing a *prima facie* case of obviousness. One of the basic requirements is that “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” Because the combination of Stapleton and Kath fails to teach all the claim limitations, the Examiner has failed to establish a *prima facie* case of obviousness.

The Examiner acknowledged that Stapleton “differs from the claimed invention in that the reference does not disclose the valve as recited in the claims. The reference also does not

disclose an actuator capable of causing relative movement between the port and a conduit comprising a means to open a valve.” (It is noted that Stapleton describes embodiments having valve closures. Column 13, line 13 *et. seq.*)

The Examiner states that Kath discloses “an automated fluid dispenser and a reaction vessel having a port that is closed by a septum valve. Fluid is added to the reaction vessel by piercing the septum with a dispensing canula of the automated fluid dispenser.”

Thus, the Examiner reasons, the present invention would have been obvious to the person of ordinary skill in the art because it would have been obvious to “provide a septum valve and an automated fluid dispenser comprising a canula in the port of the device disclosed by Stapleton et al. The septum valve would provide a means for introducing fluid into the device without contamination.” However, this description of the device resulting from the combination of the Stapleton and Kath does not describe the invention claimed in the present application.

Claims 1-4, 10, 12, 13 and 17-24 are directed to an apparatus having “a valve comprising a moveable valve element, wherein said valve is positioned at the fluid port, said valve capable of opening... and closing” in combination with a conduit and “a member associated with the conduit capable of moving the moveable valve element...”

A pierceable septum seal as described in Kath is not a valve comprising a moveable valve element as claimed in the present application. In fact, Kath states at column 1, lines 26-28 and lines 59-61 that:

One design approach, suitable for automation, is to replace the top valve with a septum and add fluid by piercing the septum with a dispensing canula.... The optimum design should not have check valves, u-tubes, or o-rings which decrease the reliability and increase the cost of manufacturing arrays of reaction wells.

Thus, Kath clearly does not utilize a valve as claimed in the present application and, in fact, teaches away from such use.

As acknowledged by the Examiner, Stapleton also does not disclose “an actuator capable of causing relative movement between the port and a conduit comprising a means to open a valve.” Similarly, Kath does not teach a member associated with a conduit that is capable of moving the moveable valve element. Thus, both references, alone or in combination, fail to teach the limitation of a member associated with a conduit that is capable of moving the moveable valve element.

Because the combination of Stapleton and Kath fails to teach, disclose or suggest every limitation of the claims, a *prima facie* case of obviousness has not been established. Thus, the rejection under 35 U.S.C. §103(a) is respectfully traversed and reconsideration is requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By 

James M. Smith

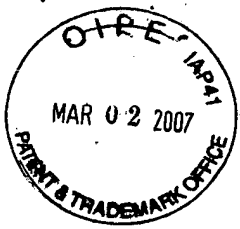
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Date: 



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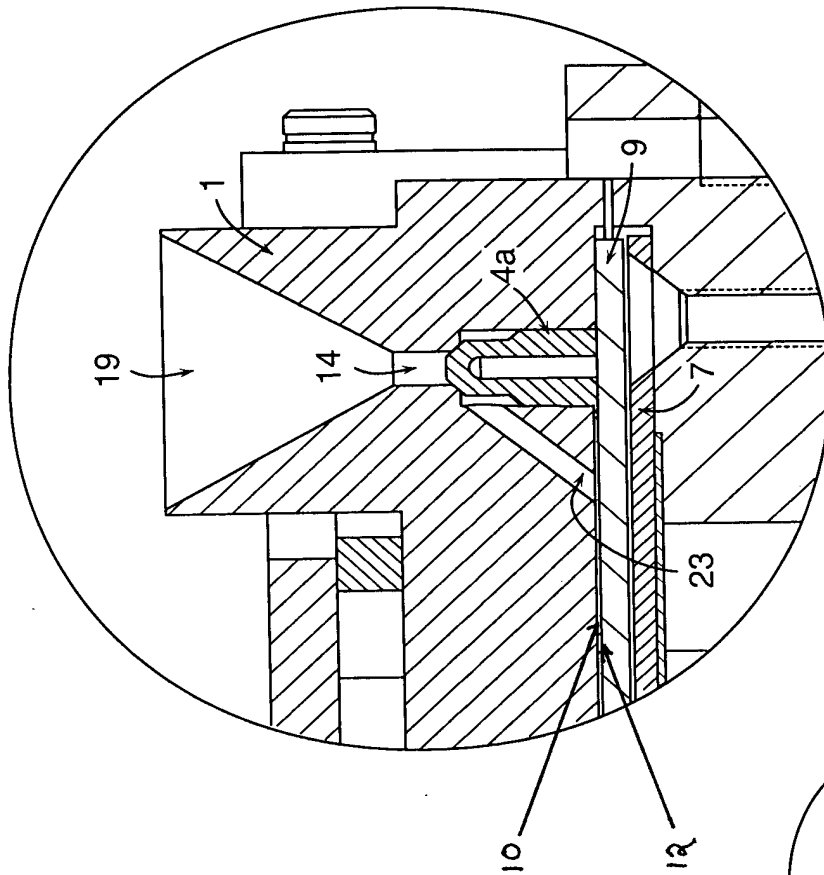


FIG. 6

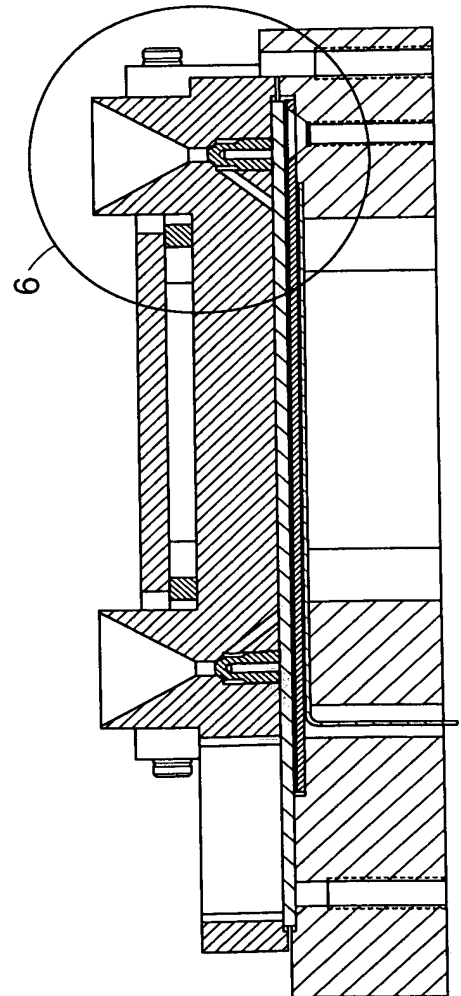


FIG. 5

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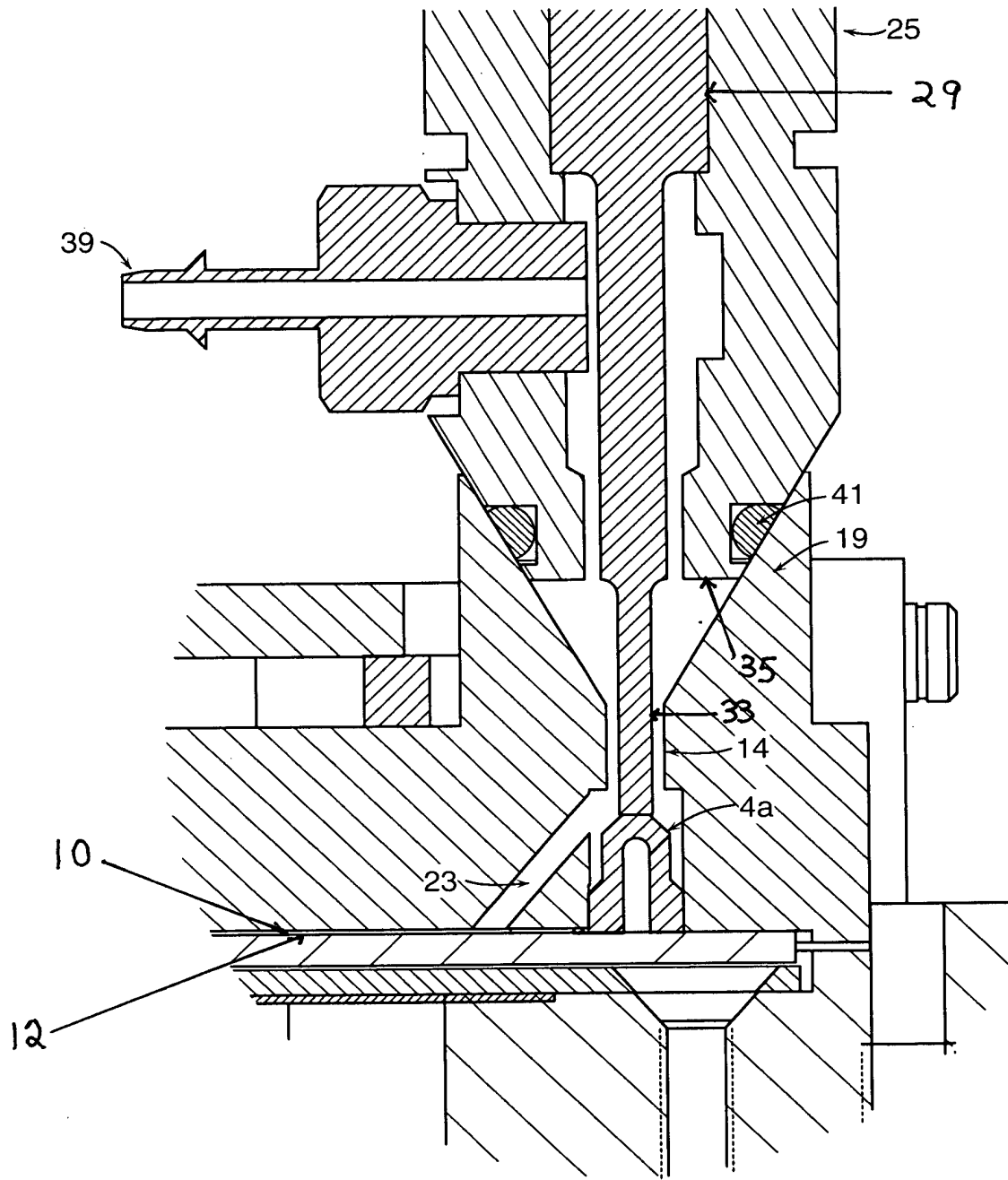


FIG. 10